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EXAMINER

BASHORE, WILLIAM L

ART UNIT PAPER NUMBER

2176

DATE MAILED: 05/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/534,824

Applicant(s)

EDGE ET AL.

Examiner

William L. Bashore

Art Unit

2176

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27, 29-33, 35-39 and 41-50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27, 29-33, 35-39 and 41-50 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 2176

### **DETAILED ACTION**

1. This action is responsive to communications: RCE filed 3/13/2006 to the original application filed 3/23/2000.
2. Claims 1-27, 29-33, 35-39 and 41-50 pending. Dependent claims 28, 34, 40 have been canceled by Applicant. Claims 1, 10, 18, 26, 32, 38, 44-48, 50 are independent.

### ***Continued Examination Under 37 CFR 1.114***

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/13/2006 has been entered.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-2, 4-11, 13-19, 21-27, 29-33, 35-39, 41-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vyncke et al. (hereinafter Vyncke), US 5,926,185 patented 7/20/1999, cited in Applicant's 10/20/2000 IDS in view of Adobe Illustrator 8.0 (hereinafter Illustrator), (Help Section) "Using Gradients, Blends, and Patterns," Changing gradients, blends and patterns into filled objects, pages 1-2, cited in Applicant's 10/20/2000 IDS.

**Regarding independent claims 1, 10, and 18,** Vyncke teaches identifying complex page description commands and replacing them with simplified page description commands in the abstract, and col. 2 line 41 - col. 3 line 17. Vyncke teaches identifying and simplifying implicit color commands in fig. 4-5 and col. 5 line 46 - col. 6 line 45. Vyncke teaches in col. 1 lines 56-57 that it is desirable to edit the page description command objects instead of the pixel image file. Thus, Vyncke teaches that it is desirable to edit the commands of the page description language before the commands are sent to a raster image processor. Vyncke does not teach converting the implicit color commands to explicit color commands. Illustrator does teach converting an identified implicit color command into a set of explicit color commands in pages 1 and 2. The figure shows a gradient being transformed into a set of explicitly colored bands which collectively represent the former gradient implicit color command. Illustrator teaches that this can be particularly useful if there is difficulty printing objects containing the implicit gradients or blends. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teaching of Illustrator and Vyncke to have created the claimed invention. It would have been obvious and desirable to have modified the page description command identification and replacement technique of Vyncke with the ability to replace implicit color commands with explicit color commands as is taught by Illustrator so that the document would have been appropriately modified to have overcome printing problems. Both Vyncke in col. 1 line 56 - col. 2 line 12 and Illustrator is page 1 indicate that it is desirable to edit page description color commands to improve printing quality.

Vyncke teaches in col. 6 lines 34-45 that the individual colors of the implicit color command may be modified by the user. Illustrator does teach converting an identified implicit color command into a set of explicit color commands in pages 1 and 2. The figure shows a gradient being transformed into a set of explicitly colored bands which collectively represent the former gradient implicit color command. Illustrator teaches that this can be particularly useful if there is difficulty printing objects containing the implicit gradients or blends. Since the expand command teaching of Illustrator teaches a set of explicit color command objects, the objects can then be independently manipulated, thus allowing modification of the color values specified by the explicit color

Art Unit: 2176

commands. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teaching of Illustrator and Vyncke to have created the claimed invention. It would have been obvious and desirable to have modified the page description command identification and replacement technique of Vyncke with the ability to replace implicit color commands with explicit color commands as is taught by Illustrator so that the document could have been appropriately modified to have overcome printing problems. Both Vyncke in col. 1 line 56 - col. 2 line 12 and Illustrator is page 1 indicate that it is desirable to edit page description color commands to improve printing quality.

**Regarding dependent claims 2, 11, and 19,** Vyncke teaches in col. 1 lines 56-57 wherein page description color commands are identified and converted without raster image processing the page description file.

**Regarding dependent claims 4, 13, and 21,** Vyncke teaches identifying a one or more implicit color commands which define reproductions of graphic image objects over a color range in fig. 4-5 and col. 5 line 46 - col. 6 line 45. Vyncke does not teach converting the implicit color commands to explicit color commands. Illustrator does teach converting an identified implicit color command into a set of explicit color commands in pages 1 and 2. The figure shows a gradient being transformed into a set of explicitly colored bands which collectively represent the former gradient implicit color command. Illustrator teaches that this can be particularly useful if there is difficulty printing objects containing the implicit gradients or blends. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teaching of Illustrator and Vyncke to have created the claimed invention. It would have been obvious and desirable to have modified the page description command identification and replacement technique of Vyncke with the ability to replace implicit color commands with explicit color commands as is taught by Illustrator so that the document could have been appropriately modified to have overcome printing problems. Both Vyncke in col. 1 line 56 - col. 2 line 12 and Illustrator is page 1 indicate that it is desirable to edit page description color

. commands to improve printing quality.

**Regarding dependent claims 5, 14, and 22,** Vyncke teaches simplifying substantially all of the implicit color commands within the page description file in fig. 4-5 and col. 5 line 46 - col. 6 line 45. Vyncke does not teach converting the implicit color commands to explicit color commands. Illustrator does teach converting an identified implicit color command into a set of explicit color commands in pages 1 and 2. The figure shows a gradient being transformed into a set of explicitly colored bands which collectively represent the former gradient implicit color command. Illustrator teaches that this can be particularly useful if there is difficulty printing objects containing the implicit gradients or blends. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teaching of Illustrator and Vyncke to have created the claimed invention. It would have been obvious and desirable to have modified the page description command identification and replacement technique of Vyncke with the ability to replace implicit color commands with explicit color commands as is taught by Illustrator so that the document could have been appropriately modified to have overcome printing problems. Both Vyncke in col. 1 line 56 - col. 2 line 12 and Illustrator is page 1 indicate that it is desirable to edit page description color commands to improve printing quality.

**Regarding dependent claims 6, 15, and 23,** Vyncke teaches identifying a one or more shading implicit color commands which define graphic image objects characterized by a starting color value, an ending color value, and a shading function over a range of color values between the starting color value and the ending color value in fig. 4-5 and col. 5 line 46 - col. 6 line 45. Vyncke does not teach converting the implicit color commands to explicit color commands. Illustrator does teach converting an identified implicit color command into a set of explicit color commands in pages 1 and 2. The figure shows a gradient being transformed into a set of explicitly colored bands which collectively represent the former gradient implicit color command. Illustrator teaches that this can be particularly useful if there is difficulty printing objects containing the implicit gradients

Art Unit: 2176

or blends. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teaching of Illustrator and Vyncke to have created the claimed invention. It would have been obvious and desirable to have modified the page description command identification and replacement technique of Vyncke with the ability to replace implicit color commands with explicit color commands as is taught by Illustrator so that the document could have been appropriately modified to have overcome printing problems. Both Vyncke in col. 1 line 56 - col. 2 line 12 and Illustrator is page 1 indicate that it is desirable to edit page description color commands to improve printing quality.

**Regarding dependent claims 7, 16, and 24,** Vyncke teaches identifying a one or more shading implicit color commands which define graphic image objects characterized by a starting color value, an ending color value, and a shading function over a range of color values between the starting color value and the ending color value in fig. 4-5 and col. 5 line 46 - col. 6 line 45. Vyncke does not teach converting the implicit color commands to explicit color commands. Illustrator does teach converting an identified implicit color command into a set of explicit color commands, wherein the explicit color commands are a plurality of sub-objects, each of the sub-objects being assigned a color value corresponding to a color value produced by the shading function in an area of the graphic image object corresponding to the respective sub-object in pages 1 and 2. The figure shows a gradient being transformed into a set of explicitly colored bands which collectively represent the former gradient implicit color command. Illustrator teaches that this can be particularly useful if there is difficulty printing objects containing the implicit gradients or blends. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teaching of Illustrator and Vyncke to have created the claimed invention. It would have been obvious and desirable to have modified the page description command identification and replacement technique of Vyncke with the ability to replace implicit color commands with explicit color commands as is taught by Illustrator so that the document could have been appropriately modified to have overcome printing problems. Both Vyncke in col. 1 line 56 - col. 2

Art Unit: 2176

line 12 and Illustrator is page 1 indicate that it is desirable to edit page description color commands to improve printing quality.

**Regarding dependent claims 8, 17, and 25**, Vyncke teaches wherein the color values include cyan, magenta, yellow, and black color values in col. 6 line 46 - col. 7 line 46.

**Regarding dependent claim 9**, Vyncke teaches identifying a one or more implicit color commands and replacing them with simplified implicit color commands in fig. 4-5 and col. 5 line 46 - col. 6 line 45. Vyncke does not teach converting the implicit color commands to explicit color commands. Illustrator does teach converting an identified implicit color command into a set of explicit color commands, wherein the explicit color commands, upon raster image processing, define visual output that is analogous to visual output defined by the corresponding implicit color commands in pages 1 and 2. The figure shows a gradient being transformed into a set of explicitly colored bands which collectively represent the former gradient implicit color command. Illustrator teaches that this can be particularly useful if there is difficulty printing objects containing the implicit gradients or blends. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teaching of Illustrator and Vyncke to have created the claimed invention. It would have been obvious and desirable to have modified the page description command identification and replacement technique of Vyncke with the ability to replace implicit color commands with explicit color commands as is taught by Illustrator so that the document could have been appropriately modified to have overcome printing problems. Both Vyncke in col. 1 line 56 - col. 2 line 12 and Illustrator is page 1 indicate that it is desirable to edit page description color commands to improve printing quality.

**Regarding independent claims 26, 32, and 38**, Vyncke teaches identifying complex page description commands and replacing them with simplified page description commands in the abstract, and col. 2 line 41 - col. 3 line 17. Vyncke teaches identifying and simplifying implicit color commands in fig. 4-5 and col. 5 line 46



Art Unit: 2176

- col. 6 line 45. Vyncke teaches in col. 1 lines 56-57 that it is desirable to edit the page description command objects instead of the pixel image file. Thus, Vyncke teaches that it is desirable to edit the commands of the page description language before the commands are sent to a raster image processor. Vyncke does not teach converting the implicit color commands to plurality of implicit color sub-commands. Illustrator does teach converting an identified implicit color command into a set of color sub-commands in pages 1 and 2. The figure shows a gradient being transformed into a set of colored band sub-commands which collectively represent the former gradient implicit color command. The figure also shows a color command being converted into a plurality of color sub-commands which are individually manipulable. Illustrator teaches that this can be particularly useful if there is difficulty printing objects containing the implicit gradients or blends. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teaching of Illustrator and Vyncke to have created the claimed invention. It would have been obvious and desirable to have modified the page description command identification and replacement technique of Vyncke with the ability to replace implicit color commands with implicit color sub-commands as is taught by Illustrator so that the document could have been appropriately modified to have overcome printing problems. Both Vyncke in col. 1 line 56 - col. 2 line 12 and Illustrator on page 1 indicate that it is desirable to edit page description color commands to improve printing quality.

Vyncke teaches in col. 6 lines 34-45 that the individual colors of the implicit color command may be modified by the user.

**Regarding dependent claims 27, 33, and 39,** Vyncke teaches in col. 1 lines 56-57 wherein page description color commands are identified and converted without raster image processing the page description tile. Regarding dependent claims 28, 34, and 40, Vyncke teaches in col. 6 lines 34-45 that the individual colors of the implicit color command may be modified by the user.

**Regarding dependent claims 29, 35, and 41,** Vyncke teaches simplifying substantially all of the implicit color commands within the page description file in fig. 4-5 and col. 5 line 46 - col. 6 line 45. Vyncke does not teach converting the implicit color commands to color sub-commands. Illustrator does teach converting an identified implicit color command into a set of color sub-commands in pages 1 and 2. The figure shows a gradient being transformed into a set of colored band sub-commands which collectively represent the former gradient implicit color command. The figure also shows a color command being converted into a plurality of color sub-commands which are individually manipulable. Illustrator teaches that this can be particularly useful if there is difficulty printing objects containing the implicit gradients or blends. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teaching of Illustrator and Vyncke to have created the claimed invention. It would have been obvious and desirable to have modified the page description command identification and replacement technique of Vyncke with the ability to replace implicit color commands with implicit color sub-commands as is taught by Illustrator so that the document could have been appropriately modified to have overcome printing problems. Both Vyncke in col. 1 line 56 - col. 2 line 12 and Illustrator is page 1 indicate that it is desirable to edit page description color commands to improve printing quality.

**Regarding dependent claims 30, 36, and 42,** Vyncke teaches simplifying substantially all of the implicit color commands within the page description tile in fig. 4-5 and col. 5 line 46 - col. 6 line 45. Vyncke does not teach converting the implicit color commands to color sub-commands. Illustrator does teach converting an identified implicit color command into a set of color sub-commands in pages 1 and 2. Illustrator teaches in page 1 that the color sub-commands can be converted into explicit color commands. The figure shows a gradient being transformed into a set of explicit color command bands which collectively represent the former gradient implicit color command. The figure also shows a color command being converted into a plurality of color sub-commands which are individually manipulable. Illustrator teaches that this can be particularly useful if there is difficulty printing objects containing the implicit gradients or blends. It would have been obvious to one of

Art Unit: 2176

ordinary skill in the art at the time the invention was made to have combined the teaching of Illustrator and Vyncke to have created the claimed invention. It would have been obvious and desirable to have modified the page description command identification and replacement technique of Vyncke with the ability to replace implicit color commands with implicit color sub-commands and explicit color commands as is taught by Illustrator so that the document could have been appropriately modified to have overcome printing problems. Both Vyncke in col. 1 line 56 - col. 2 line 12 and Illustrator is page 1 indicate that it is desirable to edit page description color commands to improve printing quality.

**Regarding dependent claims 31, 37, and 43**, Vyncke teaches wherein the color values include cyan, magenta, yellow, and black color values in col. 6 line 46 - col. 7 line 46.

6. **Claims 3, 12, 20, 44-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vyncke, in view of Illustrator, and further in view of IBM Technical Disclosure Bulletin (hereinafter IBM), Concurrent PostScript Rasterizers Based High Throughput Color Printer Architecture, doc. ID NN9703141, March 1997, Vol. 40, Issue 3, pp. 1-2.**

**Regarding dependent claims 3, 12, and 20**, Vyncke does not specifically teach a table and library of commands. However, IBM teaches pdf conversions whereby color rendering dictionaries are used with tables for color transformations (IBM page 2 – bracketed portion). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply IBM to Vyncke, providing Vyncke the benefit of transformation tables for facilitating fast lookups, and lower chance of bottlenecking (see IBM page 2 – last sentence).

**Regarding independent claims 44, 45, and 46,** Vyncke teaches identifying complex page description commands and replacing them with simplified page description commands in the abstract, and col. 2 line 41 - col. 3 line 17. Vyncke teaches identifying and simplifying implicit color commands in fig. 4-5 and col. 5 line 46 - col. 6 line 45. Vyncke teaches in col. 1 lines 56-57 that it is desirable to edit the page description command objects instead of the pixel image file. Thus, Vyncke teaches that it is desirable to edit the commands of the page description language before the commands are sent to a raster image processor. Vyncke teaches in col. 6 lines 34-45 that the individual colors of the implicit color command may be modified by the user, but does not teach converting the implicit color commands to explicit color commands which are individually modifiable. Illustrator does teach converting an identified implicit color command into a set of explicit color commands which are individually modifiable in pages 1 and 2. The figure shows a gradient being transformed into a set of explicitly colored bands which collectively represent the former gradient implicit color command. Illustrator teaches that this can be particularly useful if there is difficulty printing objects containing the implicit gradients or blends. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teaching of Illustrator and Vyncke to have created the claimed invention. It would have been obvious and desirable to have modified the page description command identification and replacement technique of Vyncke with the ability to replace implicit color commands with explicit color commands as is taught by Illustrator so that the document could have been appropriately modified to have overcome printing problems. Both Vyncke in col. 1 line 56 - col. 2 line 12 and Illustrator is page 1 indicate that it is desirable to edit page description color commands to improve printing quality.

Vyncke does not specifically teach a table and library of commands. However, IBM teaches pdf conversions whereby color rendering dictionaries are used with tables for color transformations (IBM page 2 – bracketed portion). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply IBM to Vyncke, providing Vyncke the benefit of transformation tables for facilitating fast lookups, and lower chance of bottlenecking (see IBM page 2 – last sentence).

Vyncke does not specifically teach a file based on a profile characterizing color output by device. However, IBM teaches a tool for defining translation from device to device by means of tables and procedures in a Color Rendering Dictionary (IBM page 2 – bracketed portion). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply IBM to Vyncke, providing Vyncke the benefit of specialized translation, for facilitating fast lookups, and lower chance of bottlenecking (see IBM page 2 – last sentence).

**Regarding independent claim 47**, Vyncke teaches identifying complex page description commands and replacing them with simplified page description commands in the abstract, and col. 2 line 41 - col. 3 line 17. Vyncke teaches identifying and simplifying implicit color commands in fig. 4-5 and col. 5 line 46 - col. 6 line 45. Vyncke teaches in col. 1 lines 56-57 that it is desirable to edit the page description command objects instead of the pixel image file. Thus, Vyncke teaches that it is desirable to edit the commands of the page description language before the commands are sent to a raster image processor. Vyncke does not teach converting the implicit color commands to explicit color commands. Illustrator does teach converting and replacing an identified implicit color command into a set of explicit color commands in pages 1 and 2. The figure shows a gradient being transformed into a set of explicitly colored bands which collectively represent the former gradient implicit color command. Illustrator teaches that this can be particularly useful if there is difficulty printing objects containing the implicit gradients or blends. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teaching of Illustrator and Vyncke to have created the claimed invention. It would have been obvious and desirable to have modified the page description command identification and replacement technique of Vyncke with the ability to replace implicit color commands with explicit color commands as is taught by Illustrator so that the document could have been appropriately modified to have overcome printing problems. Both Vyncke in col. 1 line 56 - col. 2 line 12 and Illustrator is page 1 indicate that it is desirable to edit page description color commands to improve printing quality.

Vyncke does not specifically teach a table and library of commands. However, IBM teaches pdf conversions whereby color rendering dictionaries are used with tables for color transformations (IBM page 2 – bracketed portion). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply IBM to Vyncke, providing Vyncke the benefit of transformation tables for facilitating fast lookups, and lower chance of bottlenecking (see IBM page 2 – last sentence).

Vyncke does not specifically teach a file based on a profile characterizing color output by device. However, IBM teaches a tool for defining translation from device to device by means of tables and procedures in a Color Rendering Dictionary (IBM page 2 – bracketed portion). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply IBM to Vyncke, providing Vyncke the benefit of specialized translation, for facilitating fast lookups, and lower chance of bottlenecking (see IBM page 2 – last sentence).

**Regarding independent claim 48**, Vyncke teaches parsing a page description file to identify complex page description commands and replace them with simplified page description commands in the abstract, and col. 2 line 41 - col. 3 line 17. Vyncke teaches parsing a page description file to identify and simplify implicit color commands in fig. 4-5 and col. 5 line 46 - col. 6 line 45. Vyncke teaches in col. 1 lines 56-57 that it is desirable to edit the page description command objects instead of the pixel image file. Thus, Vyncke teaches that it is desirable to edit the commands of the page description language before the commands are sent to a raster image processor. Vyncke does not teach converting and replacing the implicit color commands with explicit color commands. Illustrator does teach converting and replacing an identified implicit color command with a set of explicit color commands that approximate the function and content defined by the identified implicit color command in pages 1 and 2. The figure shows a gradient being transformed into a set of explicitly colored bands which collectively represent the former gradient implicit color command. Illustrator teaches that this can be particularly useful if there is difficulty printing objects containing the implicit gradients or blends. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined

the teaching of Illustrator and Vyncke to have created the claimed invention. It would have been obvious and desirable to have modified the page description command identification and replacement technique of Vyncke with the ability to replace implicit color commands with explicit color commands as is taught by Illustrator so that the document could have been appropriately modified to have overcome printing problems. Both Vyncke in col. 1 line 56 - col. 2 line 12 and Illustrator is page 1 indicate that it is desirable to edit page description color commands to improve printing quality.

Vyncke does not specifically teach a table and library of commands. However, IBM teaches pdf conversions whereby color rendering dictionaries are used with tables for color transformations (IBM page 2 – bracketed portion). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply IBM to Vyncke, providing Vyncke the benefit of transformation tables for facilitating fast lookups, and lower chance of bottlenecking (see IBM page 2 – last sentence).

Vyncke does not specifically teach a file based on a profile characterizing color output by device. However, IBM teaches a tool for defining translation from device to device by means of tables and procedures in a Color Rendering Dictionary (IBM page 2 – bracketed portion). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply IBM to Vyncke, providing Vyncke the benefit of specialized translation, for facilitating fast lookups, and lower chance of bottlenecking (see IBM page 2 – last sentence).

**Regarding dependent claim 49**, Vyncke teaches leaving intact implicit spatial commands within a page description file without converting the implicit spatial commands to explicit spatial commands in col. 1 line 44 - col. 2 line 17.

**Regarding independent claim 50**, Vyncke teaches identifying complex page description commands and replacing them with simplified page description commands in the abstract, and desirable to have modified the page description command identification and replacement technique of Vyncke with the ability to replace

Art Unit: 2176

implicit color commands with explicit color commands as is taught by Illustrator so that the document could have been appropriately modified to have overcome printing problems. Both Vyncke in col. 1 line 56 - col. 2 line 12 and Illustrator is page 1 indicate that it is desirable to edit page description color commands to improve printing quality.

Vyncke does not specifically teach a file based on a profile characterizing color output by device. However, IBM teaches a tool for defining translation from device to device by means of tables and procedures in a Color Rendering Dictionary (IBM page 2 – bracketed portion). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply IBM to Vyncke, providing Vyncke the benefit of specialized translation, for facilitating fast lookups, and lower chance of bottlenecking (see IBM page 2 – last sentence).

### ***Response to Arguments***

7. Applicant's arguments filed 3/13/2006 have been fully and carefully considered but they are not persuasive.

Regarding Applicant's arguments that Vyncke and Adobe Illustrator do not teach or suggest all of the limitations of claims 1-25, the Examiner respectfully disagrees. Applicant argues that Vyncke does not identify page description language (PDL) commands, however, the Examiner believes Vyncke teaches identifying implicit color commands despite use of an object display list (ODL). The claimed invention merely requires identifying at least some of the implicit color commands within the page description file. It appears to the Examiner that Vyncke is clearly only identifying a selected portion of the PDL commands. The claimed invention does not set forth any limitation as to how the identification of the color commands must be performed, so the fact Vyncke utilizes an ODL to assist in the identification process is not excluded in any way by the language claiming the identifying. Therefore, the Examiner maintains that Vyncke teaches identifying implicit color commands.



The Examiner relies on the teachings of Illustrator to teach the modification of the implicit color commands as set forth in the claimed invention. The Examiner believes the implicitly defined objects are described by a corresponding implicit color command. The Examiner does not recognize the difference between page objects and page commands that is asserted by Applicant. The Examiner believes the objects taught by Illustrator must have corresponding commands defining the boundaries and colors of the object. Hence, these corresponding commands are the claimed color commands. By manipulating the objects, Illustrator is manipulating the commands.

The Examiner disagrees with Applicant's argument that there is no motivation to combine the teachings of Vyncke and Illustrator. Both Vyncke in col. 1 line 56 - col. 2 line 12 and Illustrator is page 1 indicate that it is desirable to edit page description color commands to improve printing quality. Vyncke and Illustrator offer different modifications to implicit color commands to help improve printing quality. The combined invention would automatically identify implicit color commands in a page description language file as is taught by Vyncke, but would have the ability not only to modify the implicit color commands according to Vyncke, but would have the added benefit of converting implicit color commands according to the teaching of Illustrator. The additional implicit color command conversion techniques provided by Illustrator would enhance the ability of the combined invention to improve printing quality as is a motivation disclosed by both Vyncke and Illustrator.

Regarding Applicant's arguments that Vyncke and Illustrator do not teach or suggest all of the limitations of claims 26-43, the Examiner respectfully disagrees. Applicant argues that Vyncke does not identify page description language (PDQ commands), however, the Examiner believes Vyncke does indeed identify implicit color commands despite use of an object display list (ODL). The claimed invention merely requires identifying at least some of the implicit color commands within the page description file." In identifying objects in the ODL, Vyncke identifies the corresponding color commands as taught in col. 2 line 67 - col. 3 line 3. In this description of the identification process, it appears to the Examiner that Vyncke is clearly only identifying a selected portion of the PDL commands.

Art Unit: 2176

The Examiner relies on Illustrator to teach dividing a color command into color sub-commands. Illustrator teaches converting an identified implicit color command into a set of color sub-commands in pages 1 and 2. The figure on page 1 shows a gradient being transformed into a set of colored band sub-commands which collectively represent the former gradient implicit color command. The figure also shows a color command being converted into a plurality of color sub-commands which are individually manipulable. Illustrator also teaches on page one that a gradient can be converted into a mesh object, which is not shown in the figure. The Examiner understands a mesh object to be a combination of gradients with sub-commands determining the gradients within the mesh object. Thus, the Examiner believes that Illustrator teaches replacing an implicit color command with color sub-commands, which can be implicit color commands themselves.

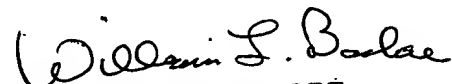
### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William L. Bashore whose telephone number is (571) 272-4088. The examiner can normally be reached on 11:30am - 8:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon can be reached on (571) 272-4136. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2176

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
**WILLIAM BASHORE**  
**PRIMARY EXAMINER**

May 29, 2006